United States Department of Agriculture

Water and Climate Update

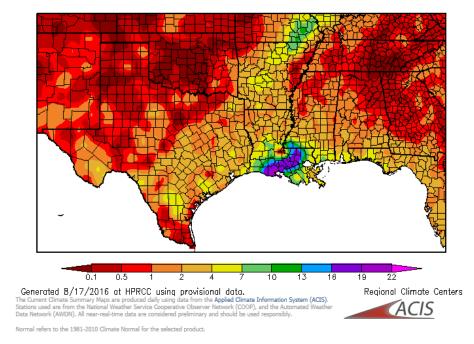
August 18, 2016

The Natural Resources Conservation Service produces this weekly report using data and products from the <u>National Water and Climate Center</u> and other agencies. The report focuses on seasonal snowpack, precipitation, temperature, and drought conditions in the U.S.

Precipitation2	Other Climatic and Water Supply Indicators
Temperature5	Short- and Long-Range Outlooks1
Drought7	More Information14

Historic flooding in Louisiana to continue with more rain forecast

Precipitation (in) 8/10/2016 - 8/16/2016



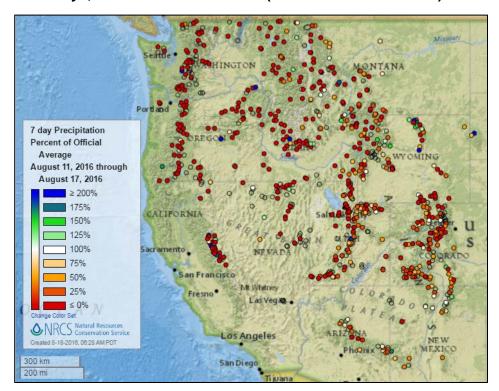
A Federal Disaster Declaration was announced this week as a result of historic flooding across a large region of Louisiana. Rainfall totals of over 16 inches were recorded in the southern part of the state. News reports 40,000 homes damaged, 30,000 people rescued, 8,400 people in shelters, and 13 deaths. More rain is forecast for the region with additional flooding expected.

Related News:

It Turns Your Heart Upside Down': Flooding Crisis in Louisiana Far From Over
Louisiana flooding is the country's 'worst natural disaster' since Hurricane Sandy, Red Cross says
Before and After Photos of the Damage from Historic Flooding in Louisiana
Louisiana Flooding: Volunteers Descend on Stricken State to Assist Relief Efforts

Precipitation

Last 7 Days, Western Mountain Sites (NRCS SNOTEL Network)

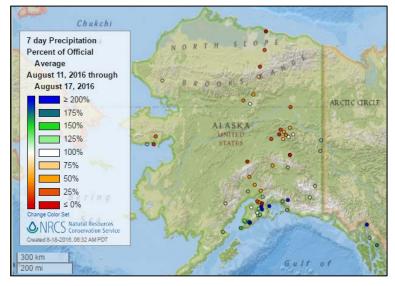


7-day precipitation percent of average map

See also: 7-day total precipitation values (inches) map

Alaska 7-day precipitation percent of average map

See also: Alaska 7-day total precipitation values (inches) map



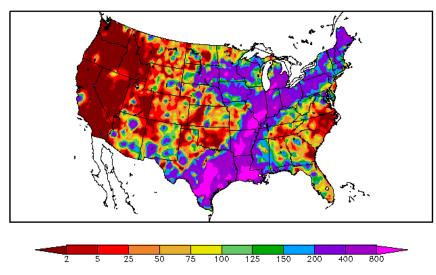
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

7-day precipitation percent of normal map for the continental U.S.

See also: 7-day total precipitation values (inches) map

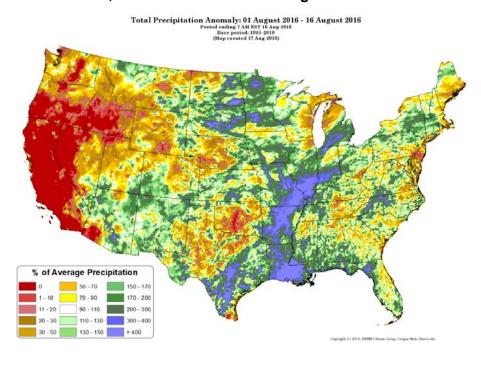
Percent of Normal Precipitation (%) 8/11/2016 - 8/17/2016



Generated 8/18/2016 at HPRCC using provisional data.

Regional Climate Centers

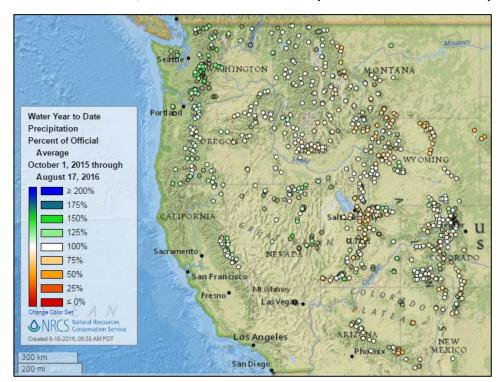
Month-to-Date, All Available Data Including SNOTEL and NWS Networks Source: PRISM



Month-to-date national precipitation percent of average map

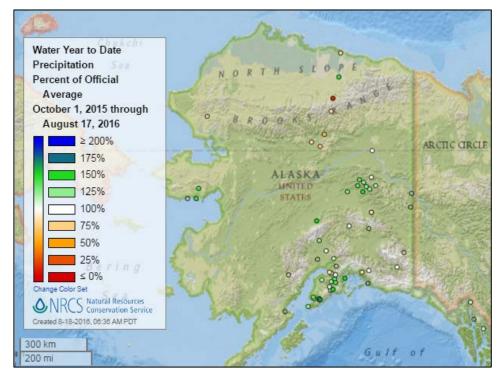
See also: Month-to-date national total precipitation values (inches) map

Water Year-to-Date, Western Mountain Sites (NRCS SNOTEL Network)



2016 water year-to-date precipitation percent of average map

See also: 2016 water year-to-date precipitation values (inches)



Alaska 2016 water year-to-date precipitation percent of average map

See also: Alaska 2016 water year-todate precipitation values (inches) map

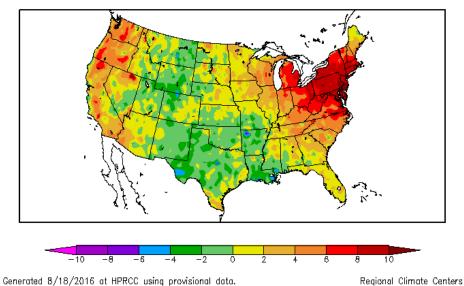
Temperature

Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

7-day temperature anomaly map for the continental U.S.

See also: 7-day temperature (° F) map Departure from Normal Temperature (F) 8/11/2016 - 8/17/2016

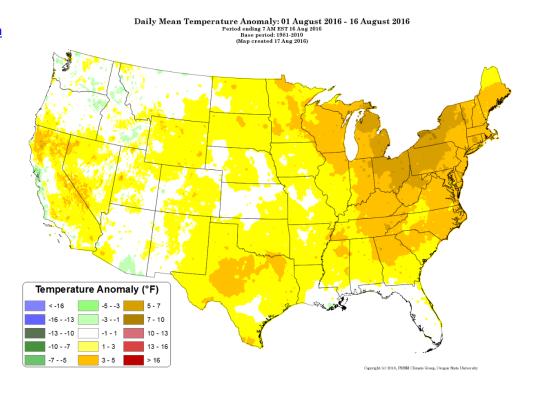


Source: PRISM

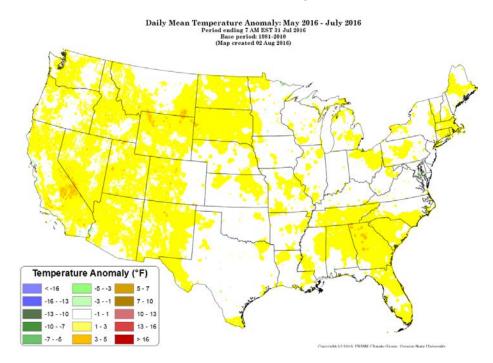
Month-to-Date, All Available Data Including SNOTEL and NWS Networks

Month-to-date national daily mean temperature anomaly map

See also: Monthto-date national daily mean **temperature** (° F) map



Last 3 Months, All Available Data Including SNOTEL and NWS Networks Source: PRISM

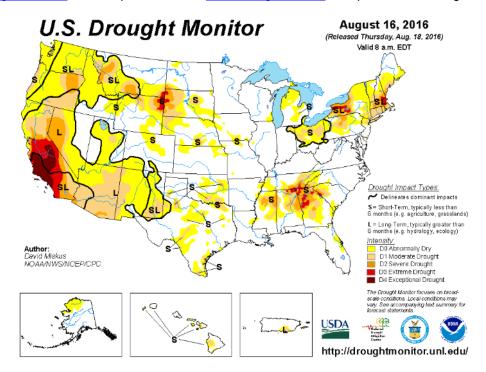


May through July daily mean temperature anomaly map

Drought

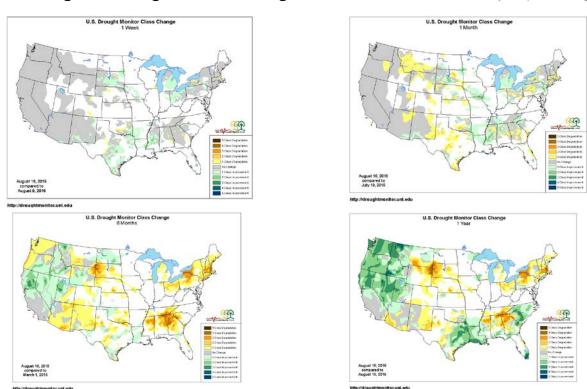
U.S. Drought Monitor See map below.

U.S. Drought Portal Comprehensive drought resource.



Changes in Drought Monitor Categories over Time

Click any map to enlarge



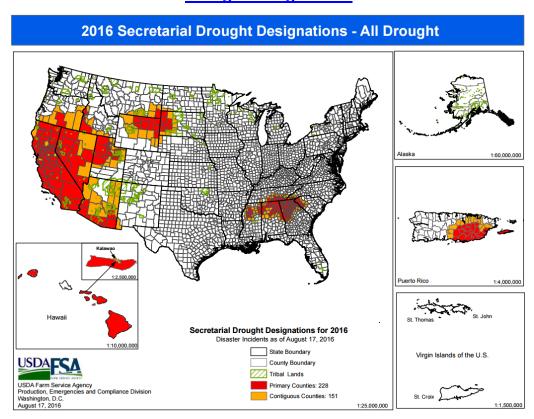
Changes in drought conditions over the last 12 months

Current National **Drought Summary**, August 16, 2016

Author: David Miskus, NOAA/NWS/NCEP/CPC

"A series of slow-moving or stationary cold fronts plus a westward wandering upper-air low along the Gulf Coast produced widespread moderate to heavy (more than 2 inches) rains in portions of the north-central Plains and upper Midwest, much of the Corn Belt, southern Great Plains, Ohio, and lower Mississippi Valley, along the Gulf Coast, and the Northeast. Record flooding occurred in Louisiana where up to 2 feet of rain inundated the southern half of the state, requiring thousands of water rescues and drowning several people. Weekly amounts exceeding 8 inches also fell on southeastern Missouri, southern Illinois, north-central Indiana, and southwestern Lower Michigan. The southwest monsoon was also active, especially in New Mexico and southeastern Arizona where 1-2 inches of rain fell on several locations. Oppressive heat and humidity enveloped the northeastern quarter of the Nation, with weekly temperatures averaging more than 6 deg F above normal. Highs in the nineties were common, with some locations nearing triple-digits, but when combined with dew points in the seventies, apparent temperatures were unbearable to dangerous. In contrast, near to subnormal readings occurred across most of the western half of the U.S. and along the Gulf Coast. Most of Puerto Rico, Alaska, and Hawaii measured light to moderate rainfall, but not enough fell on the drought areas for any improvement."

USDA 2016 Secretarial Drought Designations

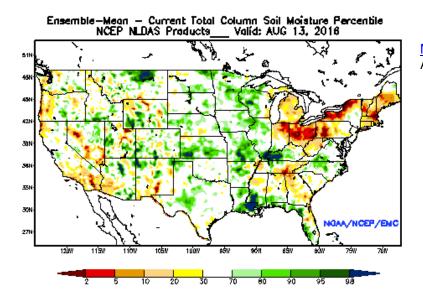


Highlighted Drought Resources

- Drought Impact Reporter
- Quarterly Regional Climate Impacts and Outlook
- U.S. Drought Portal Indicators and Monitoring
- U.S. Population in Drought, Weekly Comparison
- USDA Disaster and Drought Information

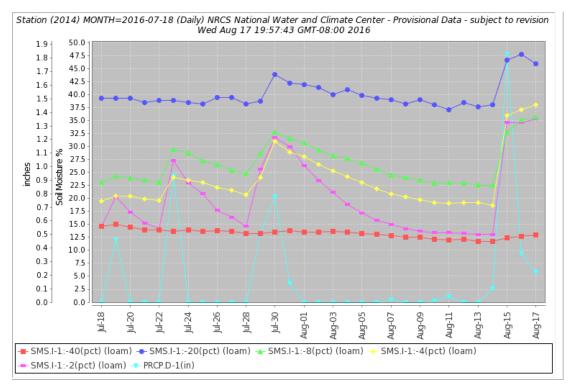
Other Climatic and Water Supply Indicators

Soil Moisture



Modeled soil moisture percentiles as of August 13, 2016.

Soil Moisture Data: NRCS Soil Climate Analysis Network (SCAN)



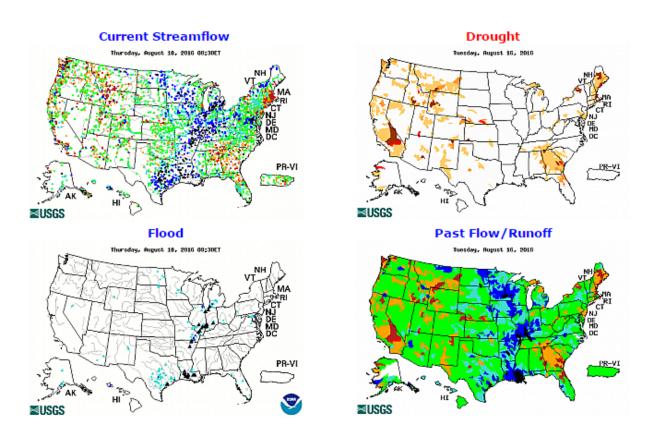
Soil moisture (at 2-, 4-, 8-, 20-, and 40-inch depths) and precipitation for the past 30 days at the Molly Caren #1 SCAN site 2014 in Ohio. The precipitation events from late July through mid-August have increased soil moisture at all soil moisture sensor depths, but most dramatically at the 2-, 4-, and 8-inch sensors. All soil sensors show drying between larger events especially from August 1 to 13.

Soil Moisture Data Portals

CRN Soil Moisture

Texas A&M University North American Soil Moisture Database University of Washington Experimental Modeled Soil Moisture

Streamflow Source: USGS



Click to enlarge and display legends

Current streamflow maps

Current Reservoir Storage

National Water and Climate Center Reservoir Data

U.S. Bureau of Reclamation Hydromet Tea Cup Reservoir Depictions:

Upper Colorado

Pacific Northwest/Snake/Columbia

Sevier River Water, Utah

Upper Missouri, Kansas, Oklahoma, Texas

California Reservoir Conditions

Wildfires: <u>USDA Forest Service Active Fire Mapping</u>



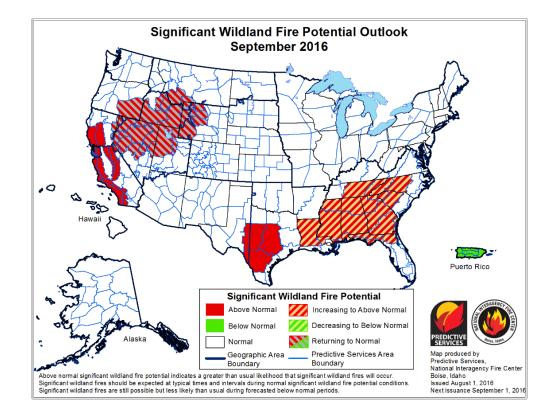
Short- and Long-Range Outlooks

Agricultural Weather Highlights

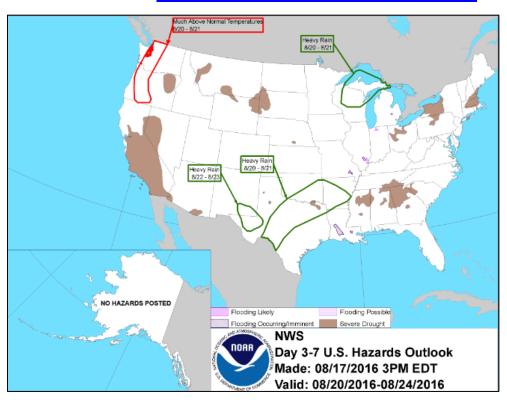
Author: Brad Rippey, Agricultural Meteorologist, USDA/OCE/WAOB

National Outlook, August 17, 2016: "In many areas from the Rockies to the East Coast, a very active weather pattern will continue through the weekend. In much of the central and eastern U.S., 5-day rainfall totals could reach 1 to 3 inches, with locally higher amounts in thunderstorms. In contrast, hot, dry weather will persist in the Far West. Meanwhile, a significant surge of cool air will reach the northern High Plains on Thursday and overspread the remainder of the nation's midsection during the weekend. Scattered, lateweek temperatures could dip below 40°F on the northern High Plains. Elsewhere, hot, humid weather will persist for several more days in the eastern U.S. The NWS 6- to 10-day outlook for August 22 – 26 calls for the likelihood of below-normal temperatures in most areas from the Rockies to the Appalachians, while hotter-than-normal conditions will prevail in the Far West and along the Atlantic Seaboard. Meanwhile, near-to below-normal rainfall across much of the country will contrast with wetter-than-normal weather in the northern Atlantic States and the central and southern Plains."

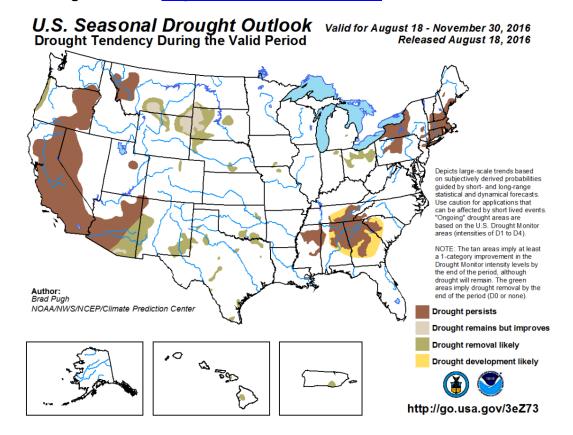
Fire Potential Outlook: September 2016



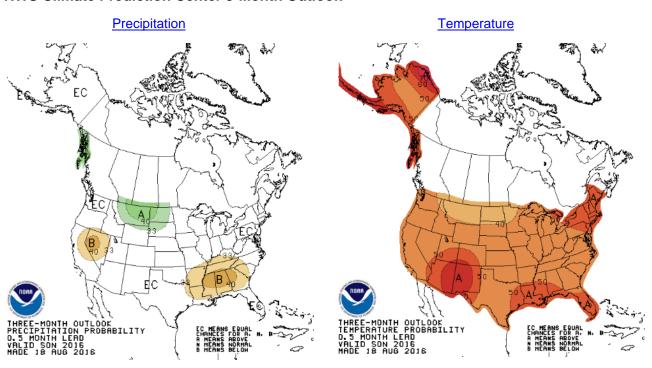
NWS Climate Prediction Center Weather Hazard Outlook: August 20 - 24, 2016



Seasonal Drought Outlook: <u>August 18 - November 30, 2016</u>



NWS Climate Prediction Center 3-Month Outlook



September-October-November (SON) 2016 precipitation outlook summary

September-October-November (SON) 2016 temperature outlook summary

Water and Climate Update

More Information

The NRCS <u>National Water and Climate Center</u> publishes this weekly report. We welcome your feedback. If you have questions or comments, please <u>contact us</u>.